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Optimising the digital age health-wise: utilisation of new/social media by Nigerian teaching hospitals

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Abstract

The nature of health communication is changing globally as more people are relying on the Internet for health information (Gallant, Irizarry, Boone & Kreps, 2011). These authors argue that web-based communication tool development that engages e-patients can better guide effective healthcare strategies and intervention and promote participatory medicine. However, In Nigeria, health communication is only evolving and it is not clear the extent to which it can be argued that hospitals are taking advantage of the Internet and its related platforms (e.g. Social Media) to influence health outcomes or impact on health promotion, disease prevention or health literacy generally. Paucity of information in this field of study would anchor largely on the fact that health communication researches in Nigeria seem not to have given some attention. This article therefore explores the ways in which Nigerian Teaching hospitals utilise the new and social media. Specifically, it investigates whether the new and social media are used as public relations tools (for enhancing their visibility, promoting their services and corporate image), educational tools (to provide health information, enlightenment and education for the purpose of preventing disease and promoting health), social tools (to deepen interactions and exchanges between healthcare providers and healthcare recipients). The study anchors on three theories: Social Relationships Theory, Social Exchange Theory, and the Extended Parallel Process Model. Inductive content analysis was used to examine the websites of twenty Nigerian teaching and specialist hospitals. Findings showed that the major uses to which Nigerian teaching hospitals put the new and social media are to get feedback from clients (100%), present their vision and mission statements (65%), post administrative and personnel structure information (65%), and give details of contracts (60%). These media are little used for health promotion (25%), financial transactions (10%) and interactive engagement with clients (0%). The content of Nigerian teaching hospital web pages can be categorised into three as follows: employee/public relations content (100%); in-patient and out-patient-specific content (30%), and public health promotion and education content (25%). It concludes that Nigerian teaching hospitals' recourse to the new and social media is for

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the purposes of publicity and propagation of self image (public relations). To change this trend, it was recommended among others that: teaching hospitals should increasingly use the new and social media to provide avenues for patients and relatives to tell their stories, and for health professionals to offer informed opinions on medical and health matters.

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1. Introduction

In the past, the predominant means of contact with a medical institution or health facility was face to face, reading from a book, magazine, or newspaper or through the electronic media such as a report on the radio or footage in film. Today, by means of new information and communication technology, we can learn a lot about health matters, health professionals, and health institutions. Indeed, in contemporary times, we hear of e-patients, telehealth, virtual surgery, and so on. All these have come to extend the meaning of living in the digital age.

Our interest in this article is to explore the ways in which hospitals utilise the new and social media to influence health outcomes or impact on health promotion, disease prevention or health literacy generally. However, the focus is on how and why new and social media are used by Nigerian teaching hospitals. Are they used for enhancing their visibility, promoting their services and corporate image – a public relations tool? Are they used to provide health information, enlightenment and education for the purpose of preventing disease and promoting health – an educational tool? Or are they used to deepen interactions and exchanges between healthcare providers and healthcare recipients – a social tool? In any case, a hospital can and should use all three tools. The question is: to what extent is each tool used or is one used at the detriment of the other? Health communication researches in Nigeria seem not to have given some attention. In any case, health communication is still developing in the country.

1.2 Objectives of the study

- a) To explore the concepts of digital citizenship, social media and new media.
- b) Examine the theoretical framework which underpins the discourse on social networks, social support, social exchanges and use of social media for health promotion and disease prevention.
- c) Evaluate a sample of web sites hosted by teaching hospitals in Nigeria for their use of social media to promote health and prevent disease.
- d) Elaborate on ways in which the social media could be harnessed to promote health and prevent diseases in Nigeria as obtainable in other countries.

1.3 Research questions

This study was based on the following research questions:

- (1) What do the concepts of digital citizenship, social media, and new media mean?
- (2) To what extent are the theories of social networks, social support, social exchanges relevant to the application of new and social media to health promotion and diseases prevention?
- (3) How do teaching hospitals in Nigeria use the new and social media to promote health and prevent diseases among the public?
- (4) In what ways may the new and social media be harnessed for the promotion of health and the prevention of diseases in Nigeria?

1.4 Statement of the problem

There is no doubting the fact that the power of the media stems from the ubiquity of the media, the cumulation of media messages and the consonance among media practitioners (Dennis & Merrill, 1991). Not only are the media everywhere, with the development and increasing use of social media and the new media, human lives continue to be increasingly entangled with media technologies. Now, our lives appear inseparable from the new media and the social media. We use them to initiate conversation, friendship, dating, courtship, coitus. We use them to commiserate, mourn, or even honour ourselves. Furthermore, we use them to annoy, taunt, insult, abuse. These are in addition to the uses and gratifications that we are more familiar with – information, education, entertainment, advertising, ethicisation, integration, and narcotisation.

What these mean is that the social and new media do actually expand the scope of social networks, they extend the frontiers of social exchanges, they add depth to social interactions, transactions and relationships, and they

redefine the character of the social support systems available to humans. It is true that as humans form networks, engage in interactions, exchange social ties, forge social bonds; certain social problems are bound to arise. Friends for instance, initiate and encourage those in their circle of friendship to form alcohol drinking habits. Peers also pressurise fellows to smoke tobacco or abuse narcotic drugs. As members of the opposite sex forge relationships, sexual activities may be engaged in unsafe ways. All these have health implications.

It is instructive to note that just as the new media and the social media are utilised to forge social relationships that sometimes lead to deleterious health consequences, they may equally be used to promote social relationships that pay significant attention to health promotion and disease prevention. However, it is also true that the new and social media may be used in ways that are damaging to the health of users.

One of the social institutions in society that preoccupies itself with the health of the citizenry is hospitals. Specifically, teaching hospitals are tertiary centres of learning and research. Apart from studying the social determinants of health, they concern themselves with the investigation and treatment of diseases. They likewise concentrate on efforts that promote health and prevent diseases. Gold *et al.* (2012) state as follows concerning developing health promotion intervention on social networking sites:

Very little has been published about how social networking sites might be exploited for health promotion interventions. A recent review of the use of social media for social marketing identified just four examples, none of which used the most common social networking sites listed earlier. Some health organisations have begun extending their presence into social networking sites; however, this has often been used as an additional form of marketing to promote services rather than for intervention delivery.

The questions which this study faces are therefore as follows: to what extent do Nigerian teaching hospitals use the social and new media to strengthen interactions between them and the population? In what ways have Nigerian teaching hospitals utilised the social and new media to promote health and prevent diseases? How best may Nigerian teaching hospitals harness the social and new media for health promotion and disease prevention?

2. Conceptual framework

To fully understand the discourse at hand, the following concepts need definition and clarification:

Digital Age: When we say we live in a “digital age,” or that we are “digital citizens” (netizens), what do we mean? This can be understood when reviewed from the point of view of Al Gore’s 1994 speech as captured by Leslie (2012, p. 81).

In order to preserve freedom and democracy, telecommunications development must be encouraged in every nation. In this way, citizens will think of themselves as members of the human family...interconnectness, will bring about robust and sustainable economic progress, strong democracies, better solutions to global and local environmental challenges, improve health care, and – ultimately – a greater sense of shared stewardship of our small planet.

So the essence of the digital age is to connect people, regardless of boundaries. And digital citizens according to Mossberger *et al.* (2011) are those who use the Internet regularly and effectively. Digital citizenship involves nine elements: digital access, digital commerce, digital communication, and digital literacy. Others include digital etiquette, digital law, digital rights and responsibilities, digital health and wellness, and digital security. In sum, the digital age allows the citizen to utilise the Internet via computers, mobile phones, and web-enabled tools to participate, engage, or get involved in society, politics, and government.

Social support: According to Cohen (2004, p. 679), social support, “refers to a social network’s provision of psychological and material resources intended to benefit an individual’s ability to cope with stress.” There are three types of social support:

- (a) Instrumental support such as material aid or financial assistance, or a helping hand.
- (b) Informational support such as tips, advice, or guidance.
- (c) Emotional support such as care, reassurance, trust, sympathy, empathy.

A fourth type is Appraisal support which involves making available information that is necessary for self evaluation purposes. This includes constructive feedback, affirmation, and social comparison. Social relationships have a great influence on health education and health behaviour. Significantly, the health components of social relationships include social integration, social network, and social support. Cohen (2004) explains social integration as participation in wide range of social relationships – a multi dimensional system with a behavioural aspect – active

involvement in various social activities or relationships – and a cognitive aspect – one's ability to commune and identify ones social roles.

Apart from providing emotional, informational and material support, social networks as Cohen further states, regulate behaviour, and give room for social engagement. Besides and very importantly, social networks deliver means of contact to spread disease and the conditions for conflict, exploitation, stress transmission, misguided attempts to help and feelings of loss and loneliness.

These points must be noted because though Cohen is mostly referring to natural social support, networks, and integration, it is true that digital social networks often reinforce natural ones and we should increasingly seek ways of using our digital relationships to widen the network, offer social support, foster social integration and particularly promote health and prevent socially instigated problems such as tobacco, drug, and alcohol abuse and unsafe sex practices.

2.1 Social media, new media

Social media or new media according to Kita and Thesanvitz (2010) are Internet tools that permit users to participate and produce content. They are regarded as digital appendages of interpersonal means of promotion and the narrowing of broadcast type communication. They make co-operation, exchanges, interactions, transactions possible among different kinds of people irrespective of where they live. People use the Internet for a variety of purposes: Creation and retrieval of information, banking, payment of bills, ticket broking, purchase of goods or services, voting, posting of comments and images, blogging and chatting.

Examples of social media include *Facebook, Orkut, YouTube, Myspace, LinkedIn, Live Journal* and *Twitter*. Dube (2007) identifies five major characteristics of social media or networks as follows:

- (a) Social media are user-based. Social media or online social networks are built on content generated and updated by users themselves. The contents are chats, discussions, pictures, movies, conceived and posted by users who get responses from other users and in that way the network expands and the content assumes a direction of its own. Without these contents the forums, applications and chat rooms would be devoid of messages.
- (b) Social media are interactive. The social media allow people to connect with others and to engage in activities online in a give and take sort of way. The absence of linear modes of message transmission and the presence of transactional means of communication is a cardinal attraction of the social media.
- (c) Social media are community-driven. The social media make it possible for people to form online communities based on shared interests such as sports, education, health, faith, sexual orientation, ethnicity, etc.
- (d) Social media thrive on relationships. The social media are built on the basis of social networks which are hinged on relationship – friendship, family ties, ethnic ties, professional bonds, shared hobbies, etc. The larger the network, the greater the propensity of wider reach for content posted online.
- (e) Social media are emotionally charged. Since social media are made up of network of people who are socially related, the emotional component of such relationships makes it possible to rely on members of the network for support in the form of love, sympathy, empathy, encouragement, solidarity, and to fight off feelings of rejection, loneliness, depression, etc.

Again, Kita and Thesanvitz (2010) emphasise that a network is made up of people, groups, organisations and relationships, flows, transaction that create connections online. It brings together people who bridge and bond by strengthening the social connection, usually through people who act as a connector, and very importantly, social networks are a great influence on behaviour. A few social media tools include:

- i) RSS (Really Simple Syndication) – a newsfeed technology that allows subscribers to tell when a website has added new information.
- ii) Social network websites (e.g. *Facebook, LinkedIn, MySpace, Ning*) allow users to create a profile description, select other users as friends, contacts, and share their contacts' contacts as well.
- iii) Wikis – a place where multiple people can collaborate.
- iv) A forum – a website that centres around discussion between users, organised by topic.
- v) Video sharing (e.g. *You Tube, blip tv, qik.com*) services host and display files for others to watch, comment on, and share.
- vi) Podcasts (mp3 or other audio formats) are audio files listened to on a computer or mobile music player (e.g. Ipod).

2.2 Theoretical framework

Man is a social being. Fiske (2010) states that the most striking feature of humans is their sociality and that social relationships permeate all facets of human life in the most extensive, complex and diverse of ways. To Fiske, social relationships occur where two or more persons transact with each other in such a manner that their behaviour, emotion, judgment, or thought complement each other. In other words, Fiske means that social relationships occur when someone, “acts under the implicit assumption that they are interacting with reference to imputably shared meanings” (p.1).

Furthermore, according to Fiske, people often employ four basic models to coordinate many features of sociality around the world. These models which have come to be known as the relational models theory are as follows:

- (a) Communal Sharing: This is a relationship where persons in a group relationship take themselves as equivalent or undifferentiated within the social domain.
- (b) Authority Ranking: In this relationship, people assume unequal postures where subordinates respect and obey while superiors give orders and offer care and protection.
- (c) Equality Matching: In this relationship, people strive not to upset the balance among participants and convey the notion of taking turns, equal share distribution, or one person-one-vote.
- (d) Market pricing relationships which does not necessarily involve money describes a relationship that embraces socially meaningful ratios or rates namely salaries, rents, interests, etc.

It is good to keep in mind that as humans interact whether physically or digitally as occur over the social media or new media, these models are in the words of Fiske (2010, p. 2) used, “to construct, coordinate, and contest social action, as well as to interpret, plan, and remember.”

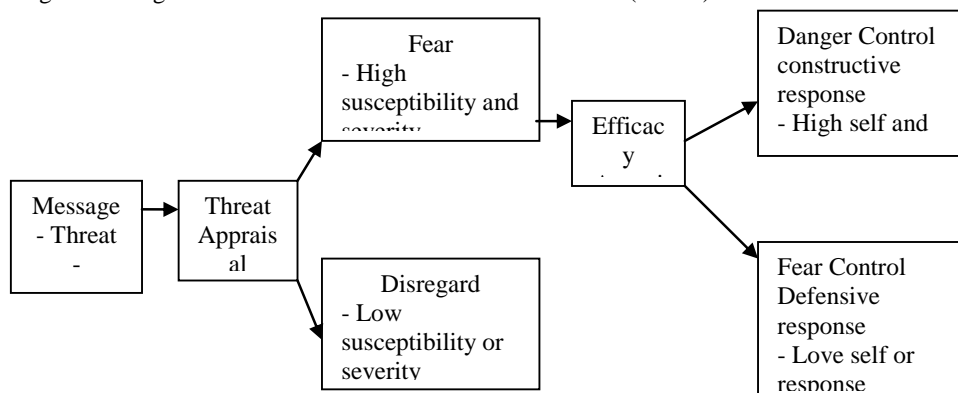
Another key communication theory that situates well within our discourse is the social exchange theory. Explained and initiated by Thibault and Kelley (1952), the theory is hinged on the exchange of rewards and costs to quantify the values of outcomes from different situations for a person. What the theory means is that individuals work to reduce costs and increase benefits and use what they judge as possible rewards to decide or regulate their relationship with others.

The value of the social exchange theory is that it is based on the principle of reciprocity. When we communicate in the social setting, the message we send out is likely to be responded to in terms of what it is worth and what the receiver perceives as the gain or loss in the message. This principle works for face to face relationship as well as relationships over the social media or the new media. If health tips are communicated over the social or new media, what does the source stand to gain and what does the receiver stand to gain? If the receiver is required to take action or give up a behaviour, what is the value of the action or the cost of given up behaviour?

Lastly, the Extended Parallel Process Model (EPPM) is relevant to our discussion. Witte (1992) originated this theory and Hipper (2011) explains that, the theory is based on two main ingredients namely: threat and efficacy. Threat is said to comprise of susceptibility and severity whereas efficacy is made up of self efficacy and response efficacy. What this means is that if the desired response is to come from an audience, the message must have (a) Enough high levels of both threat and efficacy; and (b) Higher levels of efficacy. It is necessary to note that, messages with enough levels of susceptibility or severity are difficult to discountenance. Also, messages with some level of threat but low level of efficacy result in denial or avoidance as the audience manages to control the fear.

Happily, messages with high threat and high efficacy levels stimulate the audience to switch into danger control by engaging in salutary behaviour to minimise the threat. This theory, adapted from Witte (1992) by Hipper is represented thus:

Figure 1: Diagram of the Extended Parallels Process Model (EPPM)



Adapted from Witte (1992); Source: Hipper (2011) new media @ hhs.gov.

As we can see, using models and theories does help us understand health communication whether we are dealing with the traditional (mass) communication, the new media or social media. Hipper (2011) concludes that a theory such as this gives us the template for our message or intervention, telling us the features we need to know about our target audience and the variable that are prone to influencing their actions. It equally permits us to assess the efficacy of our intervention and thereafter repeat our success or better our poor performance, benefits that come when we employ social media.

2.3 Review of related studies

This review of very recent and related studies is based on the following three works:

- (1) **Gold, J. et.al. (2012). Developing Health Promotion Intervention on Social Networking Sites: Recommendations from the Facespace project. *Journal of Medical Internet Research*, 14 (1): e30.**

This study was predicated on the fact that the Internet has significantly altered the way people obtain information and communicate. It noted that social networking sites permit people to maintain, develop, and view their social networks. They also offer additional functions such as public and private messaging and photo, video and other content sharing and that *Facebook*, *Twitter*, *LinkedIn* and *Myspace* were the most popular social networking sites in the world with *Facebook* having in 2012, 500 million active users.

The authors lamented the paucity of published works on the utilisation of the social media for health promotion interventions. This they say makes it difficult for others to reasonably consider if and how they might approach developing interventions in the spaces. Also, the absence of evidence for assessing such interventions makes it tough to say if health promotion interventions using social networking sites yield fruits.

This provided the rationale for the Facespace project in 2009 and 2010 – a novel health promotion intervention utilising social networking sites. The project involved the delivery of sexual health promotion through social networking sites to two main at-risk groups – youths of between 16 and 29 years and gay men. In the project, public health researchers, specialists in user interaction with information technologies, a creative production firm, and a community – based group were brought together.

The concept of the project involved using fictional characters to post video content and to interact on sites such as *Facebook*, *YouTube*, *Twitter* and *Flicker* with sexual health promotion messages embedded within some postings and interactions. On completion of the project, the report made the following observations/recommendations:

- (a) Health interventions on social networking sites need extra multidisciplinary specialists in social media and knowledge of how end users interact and engage in online milieu.
- (b) The new and challenging setting of social networking sites should be considered in project timeliness because applying and obtaining ethical, legal, and organisational permits may take a longer time.
- (c) Since the online environment is suffused with copious content; being usually appealing is not enough to attract attention. An established base of end users when the site is opened and the use of online advertisements and photo tagging may help attract end users.
- (d) To guard against the loss of participants over time within an online intervention, it pays to boost or maintain engagement by offering the intervention over a shorter period, zeroing in on one core message, making all posts as standalone messages as well as giving end users more room to generate and juggle content on their own.
- (e) It is important to ensure that health interventions get to the target group. The high point occurs when sufficient members are largely interested in a post to share it with friends, who share it with their friends continually. To make this happen, it pays to structure the campaign appropriately, comply with ethics, and imbue the message with fun and imagination and make it accessible and involving. Another way is to get people with huge social connections to spread the message.
- (f) The definition of a successful programme and the means of measuring it is critical.

The conclusion of the authors of this study is that, as the communications media continue to metamorphose, if health organisations do not embrace the social/new media they risk being isolated.

2. Gallant, L. M. et. al. (2011). Promoting Participatory Medicine with Social Media: New Media Applications on Hospital Websites that enhance Health Education and E-patients Voices. *Journal of participatory medicine*, 3:e49.

In this study, Gallant *et. al.* note that the nature of health communication is changing as more people rely on the Internet for health information. They state that understanding web-based communication tool development that engages e-patients can better guide effective healthcare strategies and intervention and promote participatory medicine.

The problem that necessitated this study was that whereas hospitals are the pivot of public health information and health education, the extent to which hospital websites help in the achievement of those important health goals was unknown. The aim of the study was therefore to examine how hospitals utilise their websites to realise their healthcare mission using the various media and content delivery schemes.

The study made use of an inductive content analysis to examine the websites of 14 top-ranked United States hospitals. The authors identified different types of online media formats used by each hospital e.g. blogs, instant-messaging, audio clips, and video clips, etc. Thereafter, patient health information content such as disease information, symptom checkers, and health education was identified within each media format. The analysis conducted between January 5, 2011 and February 28, 2011 showed the following six categories of new media applications:

- (i) Social media applications: social media allow one group of people to connect with another. In hospitals, they allow e-patients to receive health communication messages. A high number of hospitals analysed used *Facebook*, hospital-sponsored *YouTube* videos and *Twitter* to communicate with e-patients. Health information on the social media sites included patients' stories, medical expert opinion, details of procedures or tests, and health tips on diet, pediatric care, or cancer prevention.
- (ii) Blogs: These are text-based web messages. The study showed that the hospital websites contained health communication messages scripted by medical experts as well testimonials from patients. However, the study observed very little additional engagement between e-patients and blogging health providers.
- (iii) Web-based Broadcasting: The study found that the hospitals broadcast media formats include online videos, podcasts, and webinars directly on their websites instead of using *You Tube* and *Facebook* to present various forms of health information from the hospital for e-patients and in the case of webinars, medical and support staff training in half the cases.
- iv) Web-enabled e-patient communication tools. These make it possible for care providers and e-patients to interact. The study identified tools such as email, online chat, text messaging, and online support groups.
- (v) Mobile applications: These are utilised to support health information through wireless means available in smart phones, and ipad. The applications include walking exercises, symptom checkers and meditation exercises. Five of the hospitals had mobile applications.
- (vi) Online health tools: These permit e-patients to learn and educate themselves about their individual health needs. Examples of these tools are health dictionaries, health topic guides, event calendars, body mass index calculators, etc. The study showed that 11 hospital websites had patient portals through personalised accounts involving administrative tasks, accessing personalised medical information and interacting with health professionals. E- Patients could use these portals to make appointments, request referrals and prescriptions refills, pay bills, update contact information or insurance information and pre-register and fill forms for appointments.

The conclusion of the study is that it provides insights into how hospitals and other health-based websites can employ online media for future health advocacy. The merits of using online media are that they boost e-patients' involvement in health information and reinforce the objectives of healthcare agencies in the provision of healthcare resources to better health results.

3) Carroll, J. A. & Kirkpatrick, R. L. (2011). Impact of social media on adolescent behavioural health. Oakland, CA: California Adolescent Health Collaborative.

Carroll and Kirkpatrick observe that teenagers in the United States often use the Internet, cell phones, and video games to gather information and communicate with one other. The social media afford them this opportunity because of their special capacity to engender interaction and offer strong, fresh ways for youths to create and explore the social milieu. As youths' recourse to the social media, they are at the same time nurturing their identity, sexuality, physique and morality.

The study bears data to the effect that more than 70 percent of youths have cell phones and use them for text messaging. It also shows that more than 70 percent of teens have used social networking sites such as *Facebook* and *Myspace*. Also, it indicates that more than 60 percent of online teens watch online videos through online video sites such as *YouTube.com* and that 61 percent of online teens have commented on a blog.

For teens from California's urban, suburban, and rural communities, the following benefits of social media on adolescent health have been documented:

- Extensions of friendships developed earlier from school, religious organisations, sports and other local activities as well as experience of connectedness and avenues to learn from one another.
- Provision of a supportive environment to explore romance, friendship, and social status and opportunity to share and discuss taste in music, film, video, games and teen culture generally.
- Filling of void for support that is absent in traditional relationships especially for teens with different sexual orientation, the socially withdrawn or those who feel they are unattractive.
- A major source of information and advice particularly on health matters regarding diet, drug use, sexual health, and physical fitness.
- A feeling of independence and freedom that comes with staying in touch, communicating with others, and seeking out social support from parents, siblings, relatives, and friends.

Regarding the protective aspects of what teens do online, the study shows that:

Teens join an online community or a "group" on *Facebook* or *Myspace* in support of a cause (54%), They post creative writing or artwork (53%). Post or share video or music they have created (50%). They organise or invite others to an event using social media (45%). They volunteer for a campaign, nonprofit group or charity (34%), and participate in online study groups (26%).

On the negative side, they use of social media among teens also goes with some risks. These include negative effects on mental health (depression and negative self-views), cyber bullying, texting/sexting, dangers of sexual solicitation, and exposure to problematic and illegal content and privacy violations.

The study cites examples of social media use for improving adolescent health outcomes. Three of them are:

Hook up: a statewide text messaging source which provides basic facts about reproductive health and relationships. **Teensource** is a website resource for youths who seek information on healthy and responsible sexual lifestyles while **Tune** is an interactive health and wellness programme that helps teens make positive choices and healthier lives through music. In its conclusion, the study held that a multipronged approach that employs several social media platforms, and in-person contact possess the capability to reach young people with correct health information, resources and support.

There are other studies which relate to the use of social media in healthcare. Posing the question for the United States audience, on who will drive the social media in healthcare, Rauscher (2011) carves out a big chunk of role for physicians, the pharmaceutical industry and the Federal Government. He sees the Health and Human Services as a social media champion, an authoritative source of health information that uses the social media to promote education, collaborate and engage patients and clinicians on a wide range of health issues.

Similarly, in a study of how US hospitals use social media, Thaker, Nowacki, and Mehta, Sandlin (2011) reports that only (21%) of hospitals use social media and these are large, urban, health-system-based, non profit, non-governmental organisation-run ones engaged in graduate medical training or in pediatric care. Very significantly, the hospitals were using the social media to target a general audience (97%), provide content about the hospital (93%) announce news and events, promote health and further public relations (89%).

However, Sandlin states that it is worrisome that the hospitals did not use the media in social ways because their mode of communication was linear not transactional. Rather than use the social media to send out one-way messages to the masses, they should give patients the opportunity to respond and engage.

To this end, Howard (2010) has suggested five ways in which social media help promote good health. These include online communities and connections, Twitter Telemedicine and Hello Health, socialising community health data, healthcare wikis, and open source and connecting health care communities.

Lastly, in Lumba's (2012), "Ten ways to use the social media to promote wellness," the ten tips for using social media to boost engagement include; getting early adopters involved, rewarding successes publicly, bringing people together, paying attention to small details, and making it fun. Others are, owning the conversation, integrating real experiences, starting open threads for learning, being generous with health tips and making it challenging.

3. Method

This study made use of inductive content analysis to examine the websites of twenty Nigerian teaching and specialist hospitals. According to Gallant, Irizarry, Boone and Kreps (2011), this method is now more employed to study Internet content and that the paucity of empirical work on hospital website content, the virtual lack of research on hospital websites and online multimedia formats make the use of inductive analysis appropriate.

The 20 hospitals which formed the population and sample of the study included: (1) University College Hospital, Ibadan. (2) Lagos University Teaching Hospital. (3) Lagos State University Teaching Hospital. (4) Obafemi Awolowo Teaching Hospital, Ile Ife. (5) Olabisi Onabanjo Teaching Hospital. (6) National Orthopaedic Hospital, Lagos. (7) University of Ilorin Teaching Hospital. (8) University of Benin Teaching Hospital. (9) University of Nigeria Teaching Hospital. (10) Nnamdi Azikiwe University Teaching Hospital. (11) University of Calabar Teaching Hospital. (12) University of Uyo Teaching Hospital. (13) University of Abuja Teaching Hospital. (14) University of Jos Teaching Hospital. (15) University of Maiduguri Teaching Hospital. (16) Bayero University Kano Teaching Hospital. (17) Ahmadu Bello University Teaching Hospital, Zaria. (18) Othman Dan Fodio University Teaching Hospital, Sokoto. (19) University of Port Harcourt Teaching Hospital. (20) National Hospital, Abuja.

These hospitals were elected for study because they are research centres, referral hospitals and are referred to as centres of excellence in training, personnel, technology, and innovation. If any health institutions are to utilise the new and social media for health purposes, then these should be teaching and specialist hospitals.

The content categories examined were: public health/education and promotion content, employee and public relations content and in-patient/out-patient-specific content. The unit of analysis was made up of text, images, menus contained in the hospital web pages. A total of 160 web pages were analysed with each hospital having an average of eight pages. This study was carried out between September 10 and October 14, 2012.

4. Findings and discussion

The results of the study are presented as follows:

Table 1: Utilisation of New/Social Media

Type of Media	Number of Hospitals	Percentages
Website	13	65
LinkedIn	5	25
You Tube	0	0
Twitter	2	10
Facebook	15	75

Table 1 above shows that of the twenty hospitals studied, 13 (65%) had their own websites. Moreover, five hospitals (25%) were also on *LinkedIn*, none (0%) on *YouTube*, 2 (10%) on *Twitter* and 15 (75%) on *Facebook* social media channels. The Lagos University Teaching Hospital had the strongest social media presence. Besides hosting its website, it was also on *LinkedIn*, *Twitter* and *Facebook*. Similarly, the University of Ilorin Teaching Hospital is on all three social media. However, teaching hospitals in Uyo, Jos, Kano, Maiduguri, Sokoto, Nnewi, and Lagos State had no websites. The study shows that while the majority (65%) of the hospitals hosts a website, more of them (75%) were on *Facebook*. It was observed that the hospitals use of *LinkedIn* was particularly to post the profiles of the medical personnel, their specialties and careers. On the other hand, their *Facebook* pages mainly contained postings of satisfied patients or their relatives. Health and medical questions and issues were not raised there.

Table 2: Purposes of Utilising New/Social Media

Purposes of Media use	Number of Hospitals	Percentages
Presentation of vision/mission	13	65
Provision of content for clients	12	60
Posting of admin/personnel information	13	65
For recruitment, contacts, tenders	12	60
Public health/medical information	5	25
Receiving feedback from patients	20	100
For financial information/bill settlement	2	10
Interaction/engagement with patients	0	0

Data in Table 2 indicate that the teaching hospitals in Nigeria use the new and social media for a variety of reasons. Going by the analysis of their websites and web pages, the chief purpose is that of receiving feedback from people (100%). Other reasons were to present their vision and mission statements (65%), and provide details through which they can be contacted through telephone numbers, email address, web mails, street address or the social media channels (60%). The hospitals also use the new media to give information about their administrative structures and personnel (65%) and about recruitments, deployment, tenders, and contacts (60%).

However, the table also shows that only (10%) of the hospitals use the new media for financial dealings with their clients. That means, little provision is made for online payments and electronic booking or referral of patients. Very significantly, the data show that the hospitals are using the new social media to offer the public health and medical information only at the level of 25 percent and not at all (0%) to engage the public (patients and relatives) in a two-way communication.

Table 3: Content of hospital web pages

Content	Number of Hospitals	Percentages
Public health and education content	5	25
Employee and public relations content	20	100
In-patient/out-patient-specific content	6	30

Table 3 shows that five or 25 percent of the hospitals use the new and social media to post health and medical information which could be of use to the public. However, all 20 hospitals whose websites were analysed used the new media and social media for content that could be described as serving public, community, or employee relations. These include information on employment opportunities, posting of staff, bidding for contracts, etc. Also, the data indicate that only six of the hospitals or 30 percent have content that are specific to or generated by in-patients, out-patients, or their relatives. Such information borders on online booking, bill settlement and referrals.

The findings of this study can be summarised as follows:

- (a) Sixty-five percent of Nigerian teaching hospitals have websites while (75%) are on *Facebook*. Teaching hospitals presence on *LinkedIn* and *Twitter* is between 10 and 25 percent. There is no presence on *YouTube*. While seven hospitals have no websites, two of the hospitals are on three social media channels.
- (b) The major uses to which Nigerian teaching hospitals put the new and social media are to get feedback from clients (100%), present their vision and mission statements (65%), post administrative and personnel structure information (65%), and give details of contracts (60%). These media are little used for health promotion (25%), financial transactions (10%) and interactive engagement with clients (0%).
- (c) The content of Nigerian teaching hospital web pages can be categorised into three as follows: employee/public relations content (100%); in-patient and out-patient-specific content (30%), and public health promotion and education content (25%).

The implications which findings from this study have for theory and practice are as follows:

- (i) Fiske's theory of relationships which holds that human behaviour affects and is affected by others, and suggests that relationships are very important in health and disease situations; infers that teaching hospitals and indeed hospitals in Nigeria are not taking enough advantage of 'relationships' by not engaging more with the public on an interactive basis or by not offering

enough health promotion and disease prevention messages to people who can further influence others. Also, by taking advantage of the extended parallel process model, care would be taken to design effective messages.

- (ii) By not using the new and social media to engage more with the public in significantly interactive ways, teaching and specialist hospitals in Nigeria are failing to exploit the merits of social exchanges to influence health outcomes.

5. Conclusion

Social and new media have gained prominence in human affairs. They are also becoming increasingly significant in health and medical matters. In this study, we have shown that Nigerian teaching hospitals are only beginning to harness the power of the new media for health purposes. The conclusion of this study is that the Nigerian teaching hospitals' recourse to the new and social media is for the purposes of publicity and propagation of self image. To change this we make the following suggestions:

6. Recommendations

- (1) Since teaching hospitals are centres of research and innovation, their websites should be powered to contribute to health literacy among the public. People who visit hospital websites should receive health tips, education and explanations of medical and surgical procedures. These may help them prevent disease and promote health.
- (2) In this era of participatory medicine, teaching hospitals should increasingly use the new and social media to provide avenues for patients and relatives to tell their stories, and for health professionals to offer informed opinions on medical and health matters.
- (3) Health professionals should establish blogs where they comment on health issues to which patients and relatives contribute to expand health care givers/client transaction.
- (4) To help build a community of e-patient, hospitals should host online videos, podcasts and websites for the presentation of various bits of health information if their budget permits them to do so.
- (5) Establishing patient portals on hospital websites can also make things easy for e-patients. With this, they can arrange for appointments, request for referrals, pay hospital bills, and update their records.
- (6) As centres of innovation, teaching hospitals should invest in online health tools such as body mass index (BMI), health indices calculators, and health dictionaries as features of their websites to capture young, upwardly mobile ICT users as a way of gingering their interest in health matters.

As Kita and Thesenvitz (2010) have noted, social media can educate, entertain, empower and provide information, education, inspiration and innovation, as well as stimulate knowledge transfer to many by many, it is hoped that if these suggestions are taken, Nigerian teaching hospitals would contribute more effectively to the utilisation of new and social media to promote health.

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